

METHOD AND SYSTEM FOR STORING INFORMATION USING NANO-
PINNED DIPOLE MAGNETIC VORTICES
IN SUPERCONDUCTING MATERIALS

ABSTRACT OF THE DISCLOSURE

5 A method includes providing a superconducting material having pinning sites that can pin magnetic vortices within the superconducting material. The method also includes pinning one or more magnetic vortices at one or more of the pinning sites. An information storage apparatus includes a superconducting material, doped particles within the superconducting material that can pin dipole magnetic vortices, a magnetic tip that
10 generates pinned magnetic vortices and a magnetic detector that detects pinned magnetic vortices.

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